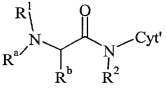
Claims

1. A compound of formula (I)



(I)

or a pharmaceutically acceptable salt thereof,

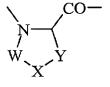
wherein

R^1 represents a residue of formula Cg-A-$(B)_m$, in which

Cg represents a hydrogen atom or a capping group;

A and B each independently represent

(a) a moiety derived from heterocyclic amino carboxylic acids of formula (II)



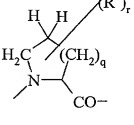
(II)

wherein

W, X and Y together with the interjacent -N-C- group form an optionally substituted, optionally benzo- or cyclohexano-condensed 4- to 6-membered heterocyclic ring in which at least one of W, X and Y is selected from N, O and S; or

(b) a moiety derived from amino carboxylic acids of the formula -[NR^3-$(U)_p$-CO]- wherein U represents CR^4R^5 and wherein R^3, R^4 and R^5 each independently represent a hydrogen atom, an optionally substituted C_1-C_6-alkyl, C_3-C_8-cycloalkyl, aryl, aralkyl, heteroaryl or heteroarylalkyl group, and p is 1, 2, 3, 4 or 5; or

(c) a moiety derived from cyclic amino carboxylic acids of formula (III)



(III)

wherein

R^6 represents C_1-C_6-alkyl, OH, or NH_2,

m is 0 or an integer from 1 to 10;

q is 0, 1 or 2; and

r is 0, 1 or 2.

R^a and R^b together with the interjacent N-C group form an optionally substituted, optionally benzo- or cyclohexano-condensed 3- to 7-membered saturated or unsaturated heterocyclic ring, in which one or two CH_2 groups may also be replaced by NH, O or S,

R^2 represents H, C_1-C_6-alkyl, C_3-C_8-cycloalkyl, aryl or heteroaryl; and

Cyt' represents the residue of a cytotoxic or cytostatic compound;

characterized in that at least one group of A and B is a moiety derived from a heterocyclic amino acid group of formula II.

2. A compound of formula (I) according to claim 1, wherein

Cg represents a hydrogen atom, or a capping group of formula

$$R^7\text{-}(CH_2)_n\text{-}Z\text{-},$$

in which

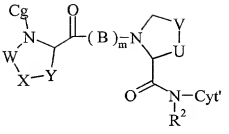
-Z- represents -CO-, -O-CO-, -NH-CO-, -SO_2- or a single bond;

R^7 is an optionally substituted C_1-C_6-alkyl, C_3-C_8-cycloalkyl, aryl, heterocyclyl or heteroaryl group; and

n is 0, 1 or 2.

3. A compound of formula I according to claim 1 or 2, wherein the heterocyclic ring formed by R^a, R^b and the interjacent N-C is substituted by R^8 and R^9, wherein R^8 and R^9 each independently represent a hydrogen or halogen atom or a C_1-C_6-alkyl, C_1-C_6-alkylamino, di-C_1-C_6-alkylamino, C_1-C_6-alkoxy, thiol, C_1-C_6-alkylthio, oxo, imino, fomyl, C_1-C_6-alkoxy carbonyl, amino carbonyl, C_3-C_8-cycloalkyl, aryl, or heteroaryl group.

4. A compound of fomula IA



(IA)

wherein R^2, B, W, X, Y, Cyt' and m are as defined in any of the preceding claims, and

U-V represents CHR^8-CHR^9, CR^8=CR^9, NH-CH_2, -CR^8, CH_2-CHR^8-CH_2 , CH_2-S or S-CH_2-, wherein

5. A compound according to any of the preceding claims, wherein A represents a moiety derived from a heterocyclic amino acid of formula II and B represents an aminoalkanoyl group, which is derived from glycine (Gly), or the D- or L-forms of alanine (Ala), valine (Val), leucine (Leu), isoleucine (Ile), phenylalanine (Phe), tyrosine (Tyr), tryptophan (Trp), cysteine (Cys), methionine (Met), serine (Ser), threonine (Thr), lysine (Lys), arginine (Arg), histidine (His), aspartatic acid (Asp), glutamic acid (Glu), asparagine (Asn), glutamine (Gln), proline (Pro), 4-hydroxy-proline (Hyp), 5-hydroxy-lysine, norleucine (Nle), 5-hydroxynorleucine (Hyn), 6-hydroxynorleucine, ornithine, or cyclohexylglycine (Chg).

6. A compound of formula I according to any of the preceding claims, wherein the unit B is derived from L-proline, glycine, L-norleucine, L-cyclohexylglycine, L-5-hydroxynorleucine, L-6-hydroxynorleucine, L-5-hydroxylysine, L-arginine, or L-lysine.

7. A compound according to any of the preceding claims, wherein the heterocyclic amino acid group of formula II is selected from the following formulae:

(Imi)


(Thz-2)


(Thz-4)


(Pyr)


(Mor)


(Pin)


(TMo)

8. A compound according to any of the preceeding claims, wherein R^1 is a group selected from the formulae (1) to (7):

Cg-Mor-Ala-Gly	(1)
Cg-Pin-Ala-Gly	(2)
Cg-Thz-2-Ala-Gly	(3)
Cg-Thz-4-Ala-Gly	(4)
Cg-Imi-Ala-Gly	(5)
Cg-Imi-$(Xxx)_m$-Ala-Gly	(6)
Cg-$(Xxx)_m$-Imi-Ala-Gly	(7)

wherein

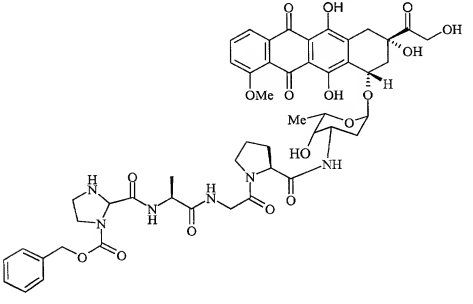
Cg represents a hydrogen atom or a capping group selected from aroyloxycarbonyl, arylacetyl, arylmethylsulfonyl and arylmethylaminocarbonyl;

Xxx represents a moiety derived from an amino carboxylic acid; and m is an integer from 1 to 6.

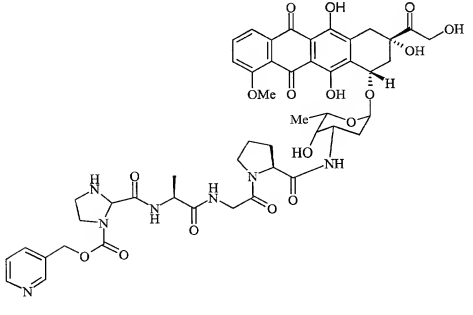
9. A compound according to claim 8 wherein the amino alkanoic acid moieties exist in the (L)-configuration

10. A compound of any one of claims 1 to 9, wherein –NR^2-Cyt' is an anthracycline derivative.

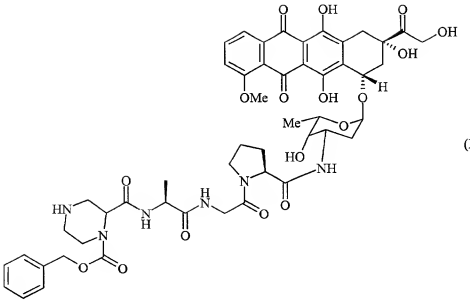
11. A compound of claim 10 selected from the formulae (IA1) to (IA6):



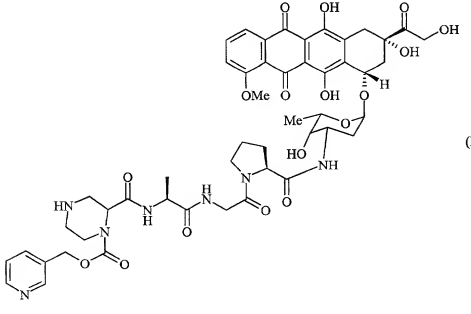
(IA1)



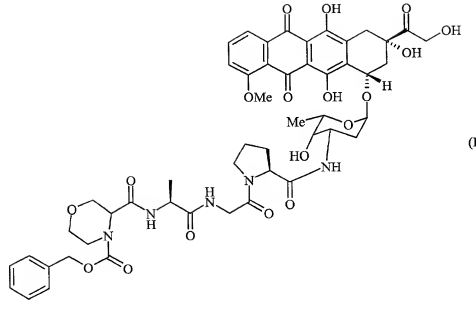
(IA2)



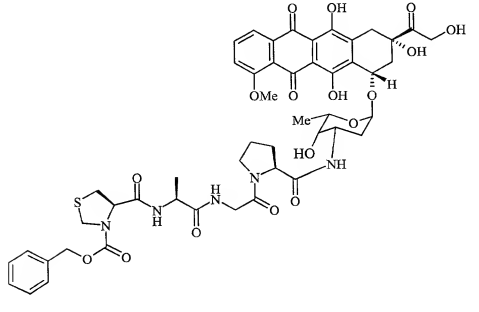
(IA3)



(IA4)

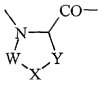


(IA5)



(IA6)

12. A prodrug that is capable of being converted into a drug by the catalytic action of FAPα, said prodrug having a cleavage site which is recognised by FAPα, and an oligomeric part comprising 2 to 13 amino carboxylic residues, wherein the C-terminal amino carboxylic residue of the oligomeric part is an optionally substituted, optionally benzo- or cyclohexano-condensed 3- to 7-membered cyclic amino acid, and the C-terminal carboxy function is linked to the cytotoxic or cytostatic part by an amide bond, characterized in that at least one amino carboxylic residue is a group of formula II,



(II)

wherein

W, X and Y together with the interjacent -N-C- group form an optionally substituted, optionally benzo- or cyclohexano-condensed 4- to 6-membered heterocyclic ring in which at least one of W, X and Y is selected from N, O and S.

13. The prodrug of claim 12 wherein the C-terminal amino carboxilic residue is selected from D-proline, L-proline, D-hydroxyproline and L-hydroxyproline.

14. The prodrug of claim 13, wherein the oligomeric part comprises two, three, or four amino carboxylic acid residues.

15. The prodrug of claims 12 to 14 wherein the N-terminal amino function is protected by a capping group.

16. A compound of any one of the preceding claims for medical use.

17. Pharmaceutical composition comprising a compound according to any one of claims 1 to 16, and optionally one or more pharmaceutically acceptable excipients.

18. Use of a compound according to any one of claims 1 to 16 in the preparation of a pharmaceutical composition for the treatment of cancer.

19. Method of treatment of cancer, comprising administering a pharmaceutical composition according to claim 17 to a patient.

20. Method of treatment of cancer, wherein a prodrug according to claims 12 to 15 is administered to a patient wherein said prodrug is capable of being converted into a cytotoxic or cytostatic drug by the activity of FAPα.

21. Use of a prodrug according to claims 12 to 15 for the manufacture of a medicament for the treatment of cancer.